

CLAIMS

What is claimed is:

1. An apparatus for shaking a container, comprising:
 - a base plate;
 - a motor mount supported by said base plate;
 - a motor coupled to said motor mount, wherein said motor is configured to rotate a shaft;
 - a wheel coupled to said shaft, wherein said wheel is configured to eccentrically rotate about said shaft, wherein said wheel is configured to rotate within a bearing;
 - a container base coupled to said bearing such that said container base is configured to move in substantial accordance with said eccentric rotation of said wheel; and
 - at least one container coupled to said container base;
 - wherein said base plate is configured to flex according to said translation of said container base.
2. The apparatus of claim 1, wherein said base plate is a cantilevered base plate and wherein said wheel is a cam.
3. The apparatus of claim 1, wherein said base plate is configured to flex generally downward as said container base moves away from a fixed portion of said base plate.
4. The apparatus of claim 1, wherein said base plate is configured to flex generally upward as said container base moves toward a fixed portion of said base plate.
5. The apparatus of claim 1, wherein said flex facilitates a tilting of said container base with respect to a horizontal surface of said base.
6. The apparatus of claim 5, wherein said tilting facilitates a change to a center of motion of at least one said container.

7. The apparatus of claim 1, wherein said shaft is a generally vertical shaft, and wherein said generally vertical shaft is oriented to be in substantial accordance of said flex of said base plate.
8. The apparatus of claim 1, wherein the movement of said container base includes a generally lateral motion with respect to said shaft, and wherein said shaft is a generally vertical shaft.
9. The apparatus of claim 1, wherein a retaining mechanism is coupled to said container base, said retaining mechanism being configured to dampen a motion of said container base.
10. The apparatus of claim 9, wherein said retaining mechanism is configured to facilitate a change to a direction of motion of said container base.
11. The apparatus of claim 9, wherein said retaining mechanism includes an elastic band.
12. The apparatus of claim 1, wherein the motion of said container base and said flex of said base plate facilitate a mixing of contents within at least one said container.
13. The container shaker of claim 1, wherein the motion of said container base and said flex of said base plate do not facilitate a separation of contents within at least one said container, and wherein said contents comprise substances with different densities.
14. The apparatus of claim 1, wherein at least one said container includes a portion of nail polish.
15. The apparatus of claim 1, further including a variable power source configured to adjust a rotational speed of said shaft.
16. The apparatus of claim 1, wherein said apparatus generates no more than approximately 10 decibels of noise during operation of said apparatus at a distance of 2 feet from said apparatus.

17. The apparatus of claim 1, further comprising a plastic component and a rubber component.
18. The apparatus of claim 1, wherein said apparatus is a nail polish shaker.
19. The apparatus of claim 18, wherein said nail polish shaker is configured to shake a plurality of containers simultaneously.
20. The apparatus of claim 1, wherein said apparatus weighs no more than approximately 15 lbs.
21. The apparatus of claim 1, wherein said apparatus is configured to receive power from an internal battery.
22. The apparatus of claim 1, wherein said apparatus is configured to receive power from an external power source.
23. A shaking device, comprising:
 - a generally vertical axis configured to dynamically tilt according to a momentum of at least one container;
 - a wheel configured to spin about said generally vertical axis; and
 - a container base interfacing with said wheel such that said container base is configured to laterally translate with respect to said generally vertical axis in general accordance with said spinning of said wheel, wherein said container base supports at least one container;wherein said momentum is generated at least in part by said lateral translation of said container base and said tilting of said generally vertical axis.
24. The shaking device of claim 23, wherein a retaining mechanism is configured to change said momentum, said retaining mechanism being coupled between said container base and a stationary part of said shaking device.
25. The shaking device of claim 24, wherein said retaining mechanism includes an elastic band configured to change a direction of motion of said container base.

26. The shaking device of claim 23, wherein said tilting facilitates a change to a center of motion of said at least one said container.

27. The shaking device of claim 23, wherein said tilting to said generally vertical axis is caused at least in part by a base plate configured to flex.

28. The shaking device of claim 27, wherein said base plate is configured to flex generally downward as said container base translates away from a supported portion of said base plate.

29. The shaking device of claim 27, wherein said base plate is configured to flex generally upward as said container base translates toward a supported portion of said cantilevered base plate.

30. An apparatus configured to mix contents of a container by applying a plurality of motions to the container, said plurality of motions comprising:
a lateral translating of the container with respect to a generally vertical axis; and
a tilting of said generally vertical axis, wherein said tilting adjusts a direction of said lateral translating such that said direction is approximately perpendicular to said generally vertical axis.

31. The apparatus of claim 30, wherein said lateral translating is generated at least in part by a wheel spinning about said generally vertical axis.

32. The apparatus of claim 31, wherein said wheel spins in a plane that is generally parallel to said direction of lateral translating.

33. The apparatus of claim 30, wherein said lateral translating includes a radially outward motion and a radially inward motion with respect to said generally vertical axis.

34. The apparatus of claim 30, wherein said direction of said lateral translating occurs in different radial directions around said generally vertical axis.

35. The apparatus of claim 30, wherein said tilting subjects the container to a generally vertical motion.

36. The apparatus of claim 30, wherein said plurality of motions does not facilitate a separation of a plurality of contents located within said container..

37. The apparatus of claim 30, wherein a velocity of said lateral translating is changed in part by a retaining mechanism coupled between a container base supportive of the container and a stationary base.

38. The apparatus of claim 30, wherein a velocity of said tilting is changed in part by a retaining mechanism coupled between a container base supportive of the container and a stationary base.

39. A method for shaking containers, comprising:

eccentrically rotating a wheel about a substantially vertical axis;

laterally moving a container base in substantial accordance with said eccentric rotation of said wheel, wherein said container base is configured to support at least one container; and

tilting said container base with respect to a horizontal surface based on the movement of said container base such that a directional orientation of said lateral translation of said container base changes in substantial accordance with said tilting.

40. The method of claim 39, wherein said tilting is caused by a base plate configured to flex according to said the lateral movement of said container base.

41. The method of claim 39, wherein said base plate is configured to flex generally downward as said container base moves away from a fixed portion of said base plate.

42. The method of claim 39, wherein said base plate is configured to flex generally upward as said container base translates toward a fixed portion of said base plate.

43. The method of claim 39, wherein said tilting facilitates a change to a center of motion of said at least one said container.

44. The method of claim 43, further comprising tilting said wheel based on the movement of said container base, wherein said wheel and said container base tilt at approximately the same angle with respect to said horizontal surface.
45. The method of claim 39, wherein the movement of said container base includes a substantially radially outward motion and a substantially radially inward motion.
46. The method of claim 39, wherein the lateral movement of said container base occurs in varying radial directions around said generally vertical axis.